IMPACT OF MINT TEA ON DYSMENORRHEA – A PILOT STUDY

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ABSTRACT

Mint tea has been traditionally used to alleviate dysmenorrhea, or menstrual cramps. It contains menthol, which has a calming effect on the muscles of the uterus, helping to reduce contractions and ease pain. Additionally, mint tea has anti-inflammatory properties that can help reduce inflammation and discomfort. In this study a quantitative approach and quasi experimental pretest – posttest control group design was adopted to assess the effectiveness of mint tea in Primary dysmenorrhea among adolescent girls. The pilot study was conducted at Gayatri science school, Bhubaneswar. The investigator collected data from Gayatri Science Higher Secondary School in Bhubaneswar, Odisha, to perform pilot research from dated 06.01.22 to 15.02.22. The pilot project received formal permission from the relevant authorities and verbal consent was obtained from the adolescent girls. Description and inferential statistics are used for data analysis. The collected data were presented in the form of tables, diagrams and graphs. Inferential Statistics include chi-square and paired t-test. There is effectiveness in giving mint tea to the level of pain in adolescent girls. Hence main study can be conducted with large sample in order to find out the effectiveness of the min tea in reducing the pain during menstruation.

Key Words: *Menstruation, mint tea, adolescent girls, Dysmenorrhea.*

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INTRODUCTION

Mint tea is a popular herbal remedy that has been used for centuries to help with dysmenorrhea, which is the medical term for menstrual cramps. When it comes to dysmenorrhea, the muscles of the uterus can contract too strongly, causing pain and discomfort. Mint tea contains a compound called menthol, which has a calming effect on the muscles of the uterus. By sipping on a warm cup of mint tea, female may be able to reduce those intense contractions and ease the pain associated with dysmenorrhea. Not only does mint tea help with muscle relaxation, but it also has anti-inflammatory properties. This means that it can help reduce any inflammation in the uterus, which can contribute to menstrual cramps. So, it's like a double whammy of relief! To make own mint tea, one can use either fresh or dried mint leaves. Simply steep a handful of leaves in hot water for about 5-10 minutes and get yourself a delicious and soothing cup of minty goodness. According to personal liking, can add a squeeze of lemon or a drizzle of honey for some extra flavour.

Menstrual pain is cramping and excessive pain experienced by a woman during menstruation. Menstrual pain is often referred as dysmenorrhea[1]. The incidence of menstrual pain according to WHO is more than 50%. Problems perceived by adolescents related to menstruation are dysmenorrhea 67.2% and pre- menstruation syndrome 63.1%[4].

In teens and young adults, dysmenorrhea is typically a primary condition that has no pelvic pathology and is linked to typical ovulatory cycles. 10% of young adults and adolescents with severe dysmenorrhea symptoms may also have uterine or pelvic abnormalities, such as endometriosis. Dysmenorrhea symptoms are largely produced by strong prostaglandins and leukotrienes. Many women experience dysmenorrhea, sometimes known as menstrual cramps, each month. Though they normally only continue for 24 to 48 hours after the start of the period, they can be highly unpleasant and incapacitating.[4]

Reports of dysmenorrhea are greatest among individuals in their late teens and 20s, with reports usually declining with age. One study indicated that 67.2% of adolescent females experienced dysmenorrhea. Adolescent females indicated a high prevalence and impact. It is significantly associated with lower age and lower parity. Childbearing is said to relieve dysmenorrhea, but this does not always occur. In nulliparous women with primary dysmenorrhea, the severity of menstrual pain decreased significantly after age 40. [9]

NEED FOR STUDY

Globally, the prevalence of dysmenorrhea among adolescent girls is about 67% to 90% and its more aged between 17 to 22 years. Studies have shown that dysmenorrhea has affected the normal life of adolescent girls and their quality of life

In the world, adolescents make up one-fifth of the total population, or more than one billion people. The majority of teenagers—four out of five—live in developing nations. Adolescents (284.02 million) made up 30% of the population in 1996, according to the Population Bureau. The number of teenagers has barely increased in India's population estimates up until the 2016 census (Population projection 1996-2016) as a result of the general population's growth rate gradually slowing down.[12]

Among female adolescents, dysmenorrhea has affected 60–93% of them. Due to dysmenorrhoea, many teenagers report being limited in their everyday activities, skipping school sporting events, and participating in other social activities. However, the fact that only 15% of women seek medical attention for menstruation pain highlights the significance of screening all teenage girls for dysmenorrhea. [10]

The content of menthols on mint leaves can be used as a carminative (sedative), antispasmodic and diaphoretic (warms up induces sweat) drug. Mint leaves are good for the body such as cooling the digestive tract or if any upset stomach helps relieve the pain. The aroma found in the mint leaves is useful for reducing nausea, headaches and pain during mensturation.[9]

Mint has several vitamins and minerals that are necessary to keep the body healthy, making it a valuable food source. While Vitamin B2 is present in smaller amounts in mint, both Vitamins A and C are abundant in it. Even when ingested in modest amounts, mint still has health benefits due to the essential elements it contains. Additionally, a variety of micronutrients like calcium, potassium, iron, copper, manganese, and copper are present in mint. [16]

Majority of the girls studying in higher secondary school stay in hostel, and are away from their homes; and hence they don't get proper family support or parental guidance. Due to long schedules of study hour and other work leads to inadequate rest and sleep and adds in worsening dysmenorrhea which finally affects their academic performance. Some personal experiences, professional experiences, advice from elders, availability of materials have motivated an interest to carry out this study.

OBJECTIVES

- To screen out the case of primary dysmenorrhea among the adolescent girls.
- To assess pre-test and post-test level of dysmenorrhic symptoms among the adolescent girls in both the experimental and control group.
- To find out the significant difference in the pretest and post-test level of dysmenorrhic symptoms in experimental group and as compared to control group.
- To compare the post test score of experimental groups with control group
- To find out the association between post test level of dysmenorrhic symptoms after administering mint tea among experimental group with their selected demographic variables.

HYPOTHESIS

- H_1: There will be significant difference in pre-test and post-test level of Dysmenorrhic Symptoms among experimental and control group.
- H_2: There will be significant association in Pre-test level of Dysmenorrhic symptoms with their selected Demographic Variable.

MATERIALS AND METHODS

Research approach and design

In this study a quantitative approach and quasi experimental pretest – posttest control group design was adopted to assess the effectiveness of mint tea in Primary dysmenorrhea among adolescent girls.

Research Setting

The pilot study was conducted at Gayatri science school, Bhubaneswar.

Sample and sampling technique

Adolescent girls with primary dysmenorrhea were selected based on the study's inclusion and exclusion criteria and divided into experimental and control groups of two each, using a non-probability purposive sampling technique.

Inclusion criteria

Adolescent of those who were:

- willing to take part in this research.
- able to read understand the English
- suffering from Primary Dysmenorrhea.
- present during the period of data collection
- having regular menstrual cycle.
- Unmarried

Exclusion criteria

- Those who are unable to provide informed consent.
- Not willing to participate in this study.
- Suffering with gynaecological disorders and undergoing treatment.
- Under hormonal therapy

Description of tools:

The tools consist of two sections:

Section A consist of demographic data of student with primary dysmenorrhea

Section B contains WaLIDD SCALE to assess the level of primary dysmenorrhea.

Validity

The content validity was given to Gynecologist, nursing experts, Statistician and English lecturer. Modifications were made in the content according to suggestion given by experts. The suggestion and recommendations of the experts were considered and after making modification the content was finalized.

Data collection procedure

The investigator collected data from Gayatri Science Higher Secondary School in Bhubaneswar, Odisha, to perform pilot research from dated 06.01.22 to 15.02.22. The pilot project received formal permission from the relevant authorities and verbal consent was obtained from the adolescent girls.

Planned data analysis

Description and inferential statistics are used for data analysis. The collected data were presented in the form of tables, diagrams and graphs. Inferential Statistics include chi-square and paired t-test.

FINDINGS

Table 1: Percentage wise distribution of samples with dysmenorrhea according to their selected demographic variables in experimental and control group.

Sl. No	Demographic Variable	Experimental Group (%)	Control Group (%)
1	**Age of students**		
	16 years	36%	41%
	17 years	59%	55%
	18 and more	5%	4%
2.	Educational Qualification		
	1st year	47%	51%
	2nd year	53%	49%
3.	Age of Menarche		
	< 12 years	26%	12%
	12 – 14 years	67%	76%
	> 14 years	7%	12%
4	**Family History of Dysmenorrhea**		
	Yes	52%	40%
	No	41%	54%
	Not sure	7%	6%
5.	**Number of pads used per day**		
	< 3 pads	33%	34%
	3 – 4 pads	51%	53%
	> 4 pads	16%	13%
6.	**Onset of Pain**		
	Prior to menses	24%	34%
	Day 1	60%	52%
	Day 2	16%	14%
7.	**Duration of flow**		
	< 3 days	14%	14%
	3 – 5 days	58%	65%
	> 5 days	28%	21%
8.	**Specify the pattern of Pain**		
	Continuous	35%	26%
	Rhythmic	55%	58%
	Brief momentary transient	10%	16%

Table 2 : Comparison of frequency and percentage distribution of assessment score of samples according to their pre-test and post-test level of dysmenorrhea in experimental and control group

Experimental Group								
Pre-Test Levels of Dysmenorrhea					**Post-Test Levels of Dysmenorrhea**			
Criteria	Percentage (%)				Percentage (%)			
	No	**Mild**	**Moderate**	**Severe**	**No**	**Mild**	**Moderate**	**Severe**
Working ability	-	43%	33%	24%	42%	33%	25%	-
Location	-	35%	50%	15%	37%	23%	31%	9%
Intensity	-	37%	37%	26%	37%	25%	26%	12%
Days of pain	-	63%	27%	10%	37%	40%	22%	1%

Control Group								
Pre-Test Levels of Dysmenorrhea					Post-Test Levels of Dysmenorrhea			
Criteria	Percentage (%)				Percentage (%)			
	No	Mild	Moderate	Severe	No	Mild	Moderate	Severe
Working ability	-	42%	40%	18%	-	42%	40%	-
Location	-	27%	59%	14%	-	27%	59%	18%
Intensity	-	26%	53%	21%	-	26%	53%	14%
Days of pain	-	62%	27%	11%	-	62%	27%	21%

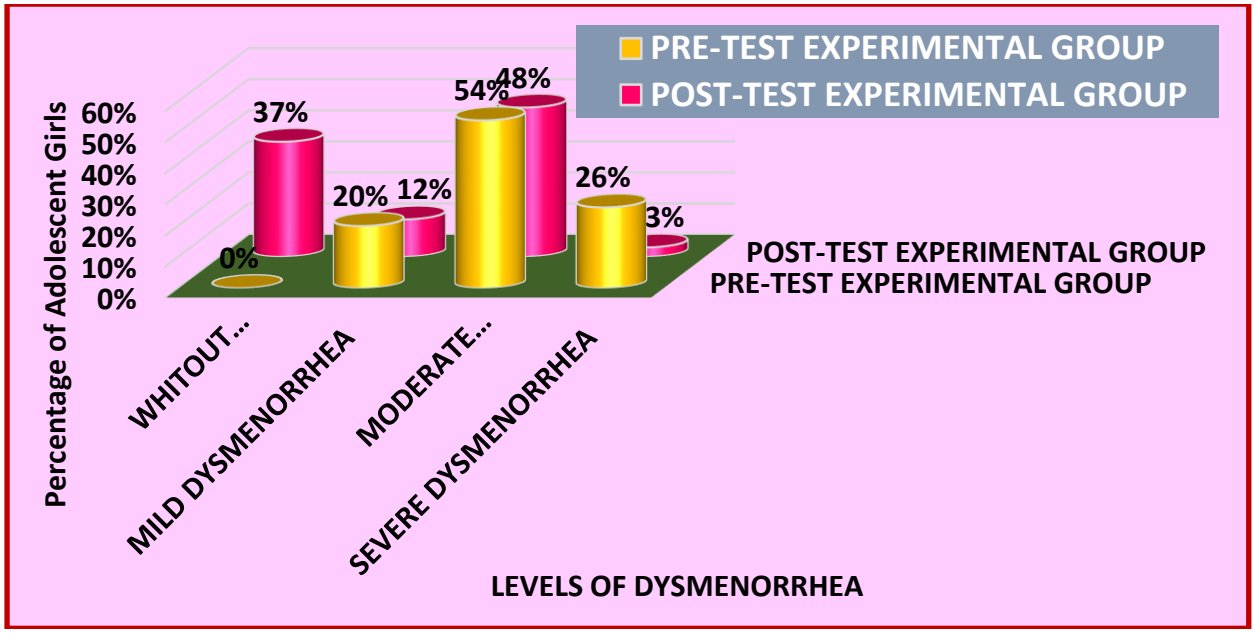

Figure 1 : Percentage wise distribution of samples according to pre-test and post-test level of Dysmenorrhea in experimental group.

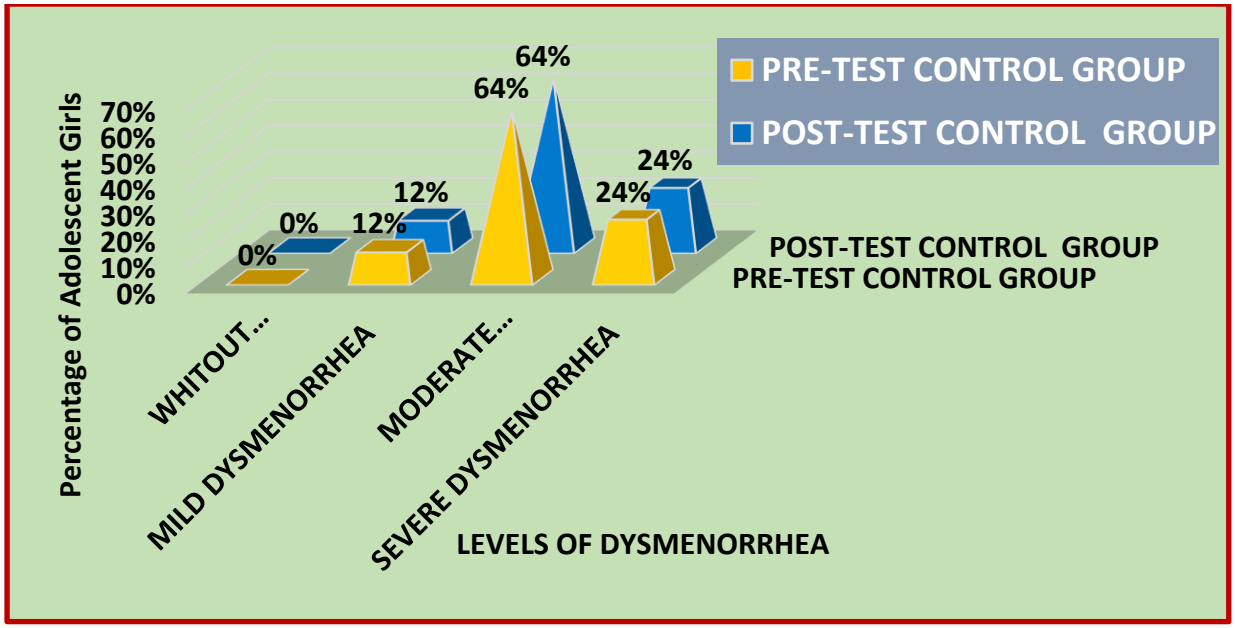

Figure 2 : Percentage wise distribution of samples according to pre-test and post-test level of Dysmenorrhea in control group.

CONCLUSION

There is effectiveness in giving mint tea to the level of pain in adolescent girls. Hence main study can be conducted with large sample in order to find out the effectiveness of the min tea in reducing the pain during menstruation.

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